

STIC-Biotech/ChemLib

183112

May

From: Vivlemore, Tracy
Sent: Friday, March 24, 2006 10:13 AM
To: STIC-Biotech/ChemLib
Subject: Sequence search request, application 10/619253

Hello,

For application 10/619,253 please perform a score over length search of nucleotides 2989-3054 of SEQ ID NO: 3. The length is 15-25 and the cutoff is 90%.

Thank you,

Tracy Vivlemore PhD
Remsen 2B-02, AU 1635
Mailbox: 2C-18
Tel: 571-272-2914

Searcher: Tracy
Searcher Phone: 22504
Date Searcher Picked up: 3/27/06
Date completed: 3/27/06
Searcher Prep Time: 00
Online Time: 00

Type of Search
NA# AA#: _____
S/L: Oligomer: _____
Encode/Transl: _____
Structure #: _____ Text: _____
Inventor: _____ Litigation: _____

Vendors and cost where applicable
STN: _____
DIALOG: _____
QUESTEL/ORBIT: _____
LEXIS/NEXIS: _____
SEQUENCE SYSTEM:
WWW/Internet: _____
Other (Specify): _____

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GenCore version 5.1.7
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On nucleic - nucleic Search, using sw model
Run on: March 27, 2006, 08:31:13 ; Search time 0.001 seconds
Perfect score: 66
Sequence: 1 caggcagccctctgac.....ctgtttcttttqaaqta 66

Scoring table: IDENTITY_NUC
Gapop 10⁻⁰, Gapext 0.5
Searched: 17 seqs, 348 residues

Total number of hits satisfying chosen parameters: 34

Minimum DB seq length: 15
Maximum DB seq length: 25

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 17 summaries

Database : us-10-619-253-3_2989_3054.rnpbn4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	25	37.9	1	US-11-121-849-244253	Sequence 244253,	SEQUENCE: 798, Application US/10923451
2	21	31.8	21	1	US-10-923-451-798	Sequence 800, App
3	21	31.8	21	1	US-10-923-451-800	Sequence 802, App
4	21	31.8	21	1	US-11-923-451-802	Sequence 804, App
5	21	31.8	21	1	US-10-923-451-804	Sequence 805, App
6	21	31.8	21	1	US-10-923-451-805	Sequence 350262,
7	20	30.3	20	1	US-11-310-914A-350262	Sequence 799, App
8	20	30.3	21	1	US-10-923-451-799	Sequence 801, App
9	20	30.3	21	1	US-10-923-451-801	Sequence 803, App
10	20	30.3	21	1	US-11-923-451-803	Sequence 806, App
11	20	30.3	21	1	US-10-923-451-806	Sequence 167, App
12	19	28.8	19	1	US-10-923-451-167	Sequence 168, App
13	19	28.8	19	1	US-10-923-451-168	Sequence 169, App
14	19	28.8	19	1	US-10-923-451-169	Sequence 457, App
15	19	28.8	19	1	US-10-923-451-169	Sequence 458, App
16	19	28.8	19	1	US-10-923-451-169	Sequence 459, App
17	19	28.8	19	1	US-10-923-451-169	

ALIGNMENTS

RESULT 1
US-11-121-849-244253
; Sequence 244253, Application US/11121849
; GENERAL INFORMATION:
; APPLICANT: John Palma
; TITLE OF INVENTION: Methods of Genetic Analysis of Formalin Fixed Paraffin Embedded
; FILE REFERENCE: 3684.1
; CURRENT APPLICATION NUMBER: US/11/121,849
; CURRENT FILING DATE: 2005-05-03

PRIOR APPLICATION NUMBER: 60/567,949
PRIORITY FILING DATE: 2004-05-03
NUMBER OF SEQ ID NOS: 673904
SOFTWARE: Microarray Probe Sequence Listing Generator v 1.1
SEQ ID NO 244253

TYPE: DNA
ORGANISM: Homo sapien
US-11-121-849-244253

Query Match 37.9%; Score 25; DB 1; Length 25;
Best Local Similarity 100.0%; Pred. No. 1.6;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 3016 GCTCAGGGTACTGAACTCTT 3040
Db 1 GCTCAGGGTACTGAACTCTT 25

RESULT 2
US-10-923-451-798

Sequence 798, Application US/10923451
Publication No. US20050256068A1
GENERAL INFORMATION:
APPLICANT: Sirna Therapeutics, Inc.
APPLICANT: McSwiggen, James
APPLICANT: Thompson, James
APPLICANT: Beigelman, Leonid

TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearyl-CoA Desaturase
FILE REFERENCE: 400/210 (MBRH02-1030-C)
CURRENT APPLICATION NUMBER: US/10/923,451
CURRENT FILING DATE: 2004-08-20
NUMBER OF SEQ ID NOS: 810
SOFTWARE: Patentin version 3.3

SEQ ID NO 798
LENGTH: 21

TYPE: DNA
ORGANISM: Artificial Sequence

FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic
FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic
NAME/KEY: misc_feature
LOCATION: (1)..(1)
OTHER INFORMATION: 5'-3' attached terminal deoxyabasic moiety, inverted abasic, OTHER INFORMATION: inverted nucleotide or other terminal cap, that is optionally present
FEATURE: OTHER INFORMATION: inverted nucleotide or other terminal cap, that is optionally present
FEATURE: NAME/KEY: misc_feature
LOCATION: (20)..(20)
OTHER INFORMATION: inverted nucleotide or other terminal cap, that is optionally present
FEATURE: NAME/KEY: misc_feature
LOCATION: (1)..(19)
OTHER INFORMATION: RNA
US-10-923-451-798

Query Match 31.8%; Score 21; DB 1; Length 21;
Best Local Similarity 66.7%; Pred. No. 4.2%;
Matches 14; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

Qy 3027 CTGACCACTCTCTCTCTT 3047
Db 1 CUGACCACTCTCTCTCTT 21

RESULT 3
US-10-923-451-800
; Sequence 800, Application US/10923451

OTHER INFORMATION: Description of Artificial Sequence: Synthetic

FEATURE:

NAME/KEY: misc_feature

LOCATION: (3).:(5)

OTHER INFORMATION: 2'-deoxy

FEATURE:

NAME/KEY: misc_feature

LOCATION: (11).:(11)

OTHER INFORMATION: 2'-deoxy

FEATURE:

NAME/KEY: misc_feature

LOCATION: (1).:(2)

OTHER INFORMATION: 2'-deoxy-2'-Fluoro

FEATURE:

NAME/KEY: misc_feature

LOCATION: (9).:(10)

OTHER INFORMATION: 2'-deoxy-2'-Fluoro

FEATURE:

NAME/KEY: misc_feature

LOCATION: (6).:(7)

OTHER INFORMATION: 2'-deoxy-2'-Fluoro

FEATURE:

NAME/KEY: misc_feature

LOCATION: (12).:(19)

OTHER INFORMATION: 2'-deoxy-2'-Fluoro

FEATURE:

NAME/KEY: misc_feature

LOCATION: (9).:(10)

OTHER INFORMATION: 2'-deoxy-2'-Fluoro

FEATURE:

NAME/KEY: misc_feature

LOCATION: (1).:(1)

OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety, inverted abasic

FEATURE: OTHER INFORMATION: inverted nucleotide or other terminal cap, that is optionally present

FEATURE:

NAME/KEY: misc_feature

LOCATION: (21).:(21)

OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety, inverted abasic,

FEATURE: OTHER INFORMATION: inverted nucleotide or other terminal cap, that is optionally present

FEATURE:

NAME/KEY: misc_feature

LOCATION: (1).:(19)

OTHER INFORMATION: RNA

US-10-923-451-804

Query Match 31.8%; Score 21; DB 1; length 21;

Best Local Similarity 66.7%; Pred. No. 4.2; Mismatches 0; Indels 0; Gaps 0;

Matches 14; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 3027 CTGAAACCACTGCTCTCTTT 3047

Db 1 CUGAACCACTGCTCTCTTT 21

RESULT 6

US-10-923-451-805
; Sequence 805, Application US/10923451
; Publication No. US20050225608A1
; GENERAL INFORMATION:

APPLICANT: Sirna Therapeutics, Inc.

APPLICANT: Thompson, James

APPLICANT: Beigelman, Leonid

APPLICANT: McSwiggen, James

APPLICANT: Bentwich, Isaac

APPLICANT: Shlizer, Krystal

APPLICANT: Bentwich, Isaac

RESULT 7

US-10-310-914A-350262/C
; Sequence 350262, Application US/10310914A
; Publication No. US2006003322A1
; GENERAL INFORMATION:

APPLICANT: Bentwich, Isaac

APPLICANT: Shlizer, Krystal

TITLE OF INVENTION: Bioinformatically detectable group of novel regulatory genes and

FILE REFERENCE: 060317.0200.CPIS01

CURRENT APPLICATION NUMBER: US/10/310,914A

CURRENT FILING DATE: 2002-12-06

NUMBER OF SEQ ID NOS: 1308402

SOFTWARE: PatentIn version 3.3

SEQ ID NO 350262

LENGTH: 20

TYPE: RNA

ORGANISM: Human

US-10-310-914A-350262

Query Match 30.3%; Score 20; DB 1; length 20;

Best Local Similarity 100.0%; Pred. No. 5.3; Mismatches 0; Indels 0; Gaps 0;

Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3035 CTGCTCTCTTGAAGTA 3054

Db 20 CTGCTCTCTTGAAGTA 1

RESULT 8
US-10-923-451-799/c
Sequence 799, Application US/10923451
Publication No. US20050256068A1
GENERAL INFORMATION:
APPLICANT: Sirna Therapeutics, Inc.
APPLICANT: Thompson, James
APPLICANT: Belgelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearyl-CoA Desaturase
FILE REFERENCE: 400/210 (MBHB02-1103-C)
CURRENT FILING DATE: 2004-08-20
NUMBER OF SEQ ID NOS: 810
SOFTWARE: PatentIn version 3.3
SEQ ID NO 799
LENGTH: 21
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
FEATURE:
NAME/KEY: misc_feature
LOCATION: (20)..(20)
OTHER INFORMATION: Phosphorothioate or Phosphorodithioate 3'-Internucleotide Linkage
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)..(19)
OTHER INFORMATION: RNA
FEATURE:
NAME/KEY: misc_feature
LOCATION: (21)..(21)
OTHER INFORMATION: (21)..(21)
FEATURE:
NAME/KEY: misc_feature
LOCATION: (10)..(11)
OTHER INFORMATION: 2'-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (18)..(19)
OTHER INFORMATION: 2',-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (9)..(9)
OTHER INFORMATION: 2',-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (13)..(14)
OTHER INFORMATION: 2',-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (12)..(12)
OTHER INFORMATION: 2'-deoxy-2'-Fluoro
NAME/KEY: misc_feature
LOCATION: (9)..(9)
OTHER INFORMATION: 2',-deoxy-2',-Fluoro
NAME/KEY: misc_feature
LOCATION: (12)..(12)
OTHER INFORMATION: 2'-deoxy-2',-Fluoro
NAME/KEY: misc_feature
LOCATION: (15)..(17)
OTHER INFORMATION: RNA
FEATURE:
NAME/KEY: misc_feature
LOCATION: (21)..(21)
OTHER INFORMATION: 3'-3 attached terminal glyceryl moiety or inverted deoxyabasic (or
Query Match 30.3%; Score 20; DB 1; Length 21;
Best Local Similarity 100.0%; Pred. No. 5.1;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 3026 ACTGAACCACTGCTCTCTT 3045
Db 20 ACTGAACCACTGCTCTCTT 1

RESULT 9
US-10-923-451-801/c
Sequence 801, Application US/10923451
Publication No. US20050256068A1
GENERAL INFORMATION:
APPLICANT: Sirna Therapeutics, Inc.
APPLICANT: McSwiggen, James
APPLICANT: Thompson, James
APPLICANT: Belgelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearyl-CoA Desaturase
FILE REFERENCE: 400/210 (MBHB02-1103-C)
CURRENT FILING DATE: 2004-08-20
NUMBER OF SEQ ID NOS: 810
SOFTWARE: PatentIn version 3.3
SEQ ID NO 801
LENGTH: 21
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
FEATURE:
NAME/KEY: misc_feature
LOCATION: (11)..(18)
OTHER INFORMATION: 2',-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (11)..(18)
OTHER INFORMATION: 2',-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (12)..(12)
OTHER INFORMATION: 2',-deoxy-2',-Fluoro
FEATURE:
NAME/KEY: misc_feature
LOCATION: (12)..(12)
OTHER INFORMATION: 2',-deoxy-2',-Fluoro
FEATURE:
NAME/KEY: misc_feature

RESULT 10
US-10-923-451-803/c
Sequence 803, Application US/10923451
Publication No. US20050256068A1
GENERAL INFORMATION:
APPLICANT: Sirna Therapeutics, Inc.
APPLICANT: McSwiggen, James
APPLICANT: Thompson, James
APPLICANT: Belgelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearyl-CoA Desaturase
FILE REFERENCE: 400/210 (MBHB02-1103-C)
CURRENT FILING DATE: 2004-08-20
NUMBER OF SEQ ID NOS: 810
SOFTWARE: PatentIn version 3.3
SEQ ID NO 803
LENGTH: 21
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
FEATURE:
NAME/KEY: misc_feature
LOCATION: (9)..(9)
OTHER INFORMATION: 2',-O-Methyl
FEATURE:
NAME/KEY: misc_feature
LOCATION: (12)..(12)
OTHER INFORMATION: 2',-deoxy-2',-Fluoro
FEATURE:
NAME/KEY: misc_feature

LOCATION: (15)..(17)
 OTHER INFORMATION: 2'-deoxy-2'-Fluoro
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: (1)..(19)
 OTHER INFORMATION: RNA
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: (20)..(20)
 OTHER INFORMATION: Phosphorothioate or Phosphorodithioate 3'-Internucleotide Linkage
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: (21)..(21)
 OTHER INFORMATION: 3'-3 attached terminal glyceryl moiety or inverted deoxyabasic (or
 US-10-923-451-803

Query Match 30.3%; Score 20; DB 1; Length 21;
 Best Local Similarity 100.0%; Pred. No. 5.1; Mismatches 0; Indels 0; Gaps 0;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3026 ACTGAAACACTGTCTCTT 3045
 Db 20 ACTGAAACACTGTCTCTT 1

RESULT 11
 US-10-923-451-806/c
 ; Sequence 806, Application US/10923451
 ; Publication No. US20050256068A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Sirna Therapeutics, Inc.
 ; APPLICANT: McSwiggen, James
 ; APPLICANT: Thompson, James
 ; APPLICANT: Belgelman, Leonid
 ; TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearoyl-CoA Desaturase
 ; TITLE OF INVENTION: (SCD) Gene Expression Using Short Interfering Nucleic Acid (sina)
 ; FILE REFERENCE: 400/210 (MBH02-1030-C)
 ; CURRENT APPLICATION NUMBER: US/10/923,451
 ; CURRENT FILING DATE: 2004-08-20
 ; NUMBER OF SEQ ID NOS: 810
 ; SOFTWARE: PatentIn version 3.3
 ; SEQ ID NO: 806
 ; LENGTH: 21
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (1)..(8)
 ; OTHER INFORMATION: 2'-deoxy
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (10)..(11)
 ; OTHER INFORMATION: 2'-deoxy
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (13)..(14)
 ; OTHER INFORMATION: 2'-deoxy
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (18)..(19)
 ; OTHER INFORMATION: 2'-deoxy
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (9)..(9)
 ; OTHER INFORMATION: 2'-deoxy-2'-Fluoro
 ; FEATURE:
 ; NAME/KEY: misc_feature
 ; LOCATION: (12)..(12)
 ; OTHER INFORMATION: 2'-deoxy-2'-Fluoro
 ; FEATURE:
 ; NAME/KEY: misc_feature

RESULT 12
 US-10-923-451-167
 ; Sequence 167, Application US/10923451
 ; Publication No. US20050256068A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Sirna Therapeutics, Inc.
 ; APPLICANT: McSwiggen, James
 ; APPLICANT: Thompson, James
 ; APPLICANT: Belgelman, Leonid
 ; TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearoyl-CoA Desaturase
 ; TITLE OF INVENTION: (SCD) Gene Expression Using Short Interfering Nucleic Acid (sina)
 ; FILE REFERENCE: 400/210 (MBH02-1030-C)
 ; CURRENT APPLICATION NUMBER: US/10/923,451
 ; CURRENT FILING DATE: 2004-08-20
 ; NUMBER OF SEQ ID NOS: 810
 ; SOFTWARE: PatentIn version 3.3
 ; SEQ ID NO: 167
 ; LENGTH: 19
 ; TYPE: RNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Synthetic
 ; US-10-923-451-167
 ; Query Match 28.8%; Score 19; DB 1; Length 19;
 ; Best Local Similarity 84.2%; Pred. No. 6.8; Mismatches 3; Indels 0; Gaps 0;
 ; Matches 16; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 2991 GGCAGCTCTCCCGCACA 3009
 Db 1 GGCAGCTCTCCCGCACA 19

RESULT 13
 US-10-923-451-168
 ; Sequence 168, Application US/10923451
 ; Publication No. US20050256068A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Sirna Therapeutics, Inc.
 ; APPLICANT: McSwiggen, James
 ; APPLICANT: Thompson, James
 ; APPLICANT: Belgelman, Leonid
 ; APPLICANT: McSwiggen, James
 ; APPLICANT: Thompson, James
 ; APPLICANT: Belgelman, Leonid
 ; TITLE OF INVENTION: RNA Interference Mediated Inhibition of Stearoyl-CoA Desaturase
 ; TITLE OF INVENTION: (SCD) Gene Expression Using Short Interfering Nucleic Acid (sina)
 ; FILE REFERENCE: 400/210 (MBH02-1030-C)
 ; CURRENT APPLICATION NUMBER: US/10/923,451
 ; CURRENT FILING DATE: 2004-08-20
 ; NUMBER OF SEQ ID NOS: 810

Db 19 |||||CTGAAACACTGCTTCCTT 1

Search completed: March 27, 2006, 08:31:14
Job time : 0.001 secs

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Om nucleic - nucleic search, using sw model

Run on: March 27, 2006, 08:30:11 ; Search time 0.001 Seconds
(without alignment) ; 13.200 Million cell updates/sec

Title: US-10-619-253-3

Perfect score: 66

Sequence: 1 caggcagctccctctgacac.....ctgtttcttttgaagta 66

Scoring table: 'IDENTITY_NUC

Gapop 10.0 , Gapext 0.5

Searched: 5 seqs, 100 residues

Total number of hits satisfying chosen parameters: 10

Minimum DB seq length: 15

Maximum DB seq length: 25

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 5 summaries

Database : us-10-619-253-3_2989_3054.rnppbm5:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
C 1	20	30.3	20 1	US-09-918-187-30 Sequence 30, Appl 1
C 2	20	30.3	20 1	US-10-484-442-30 Sequence 30, Appl 1
C 3	20	30.3	20 1	US-10-619-253-124 Sequence 124, App 1
C 4	20	30.3	20 1	US-10-619-253-125 Sequence 125, App 1
C 5	20	30.3	20 1	US-10-619-253-125

ALIGNMENTS

RESULT 1
US-09-918-187-30/C
; Sequence 30, Application US/09918187
; Publication No. US20030083282A1
; GENERAL INFORMATION:
; APPLICANT: Rosanne M. Crooke
; APPLICANT: Mark J. Graham
; TITLE OF INVENTION: ANTISENSE MODULATION OF STEAROYL-COA DESATURASE EXPRESSION
; FILE REFERENCE: ISPH-0590
; CURRENT APPLICATION NUMBER: US/10/619,253
; CURRENT FILING DATE: 2003-07-15
; PRIOR APPLICATION NUMBER: US 09/918,187
; PRIOR FILING DATE: 2001-07-30
; SEQ ID NO 30
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE: OTHER INFORMATION: Artificial Sequence
; OTHER INFORMATION: Antisense Oligonucleotide

RESULT 2
US-10-484-442-30/C
; Sequence 30, Application US/10484442
; Publication No. US20040254339A1
; GENERAL INFORMATION:
; APPLICANT: Isis Pharmaceutical, Inc.
; APPLICANT: Rosanne M. Crooke
; APPLICANT: Mark J. Graham
; TITLE OF INVENTION: ANTISENSE MODULATION OF STEAROYL-COA DESATURASE EXPRESSION
; FILE REFERENCE: ISPH-0695
; CURRENT APPLICATION NUMBER: US/10/484,442
; CURRENT FILING DATE: 2004-01-29
; PRIOR APPLICATION NUMBER: 09/918,187
; PRIOR FILING DATE: 2001-07-30
; SEQ ID NO 30
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE: OTHER INFORMATION: Antisense Oligonucleotide

RESULT 3
US-10-619-253-30/C
; Sequence 30, Application US/10619253
; Publication No. US20050043256A1
; GENERAL INFORMATION:
; APPLICANT: Rosanne M. Crooke
; APPLICANT: Mark J. Graham
; TITLE OF INVENTION: ANTISENSE MODULATION OF STEAROYL-COA DESATURASE EXPRESSION
; FILE REFERENCE: ISPH-0590US.P1
; CURRENT APPLICATION NUMBER: US/10/619,253
; CURRENT FILING DATE: 2003-07-15
; PRIOR APPLICATION NUMBER: US 09/918,187
; PRIOR FILING DATE: 2001-07-30
; SEQ ID NO 30
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE: OTHER INFORMATION: Artificial Sequence
; OTHER INFORMATION: Antisense Oligonucleotide

RESULT 4
US-10-619-253-124/C
; Sequence 124, Application US/10619253
; Publication No. US20050043256A1

Query Match 30.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 1.4;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

; GENERAL INFORMATION:
; APPLICANT: Rosanne M. Crooke
; TITLE OF INVENTION: ANTISENSE MODULATION OF STEAROYL-COA DESATURASE EXPRESSION
; FILE REFERENCE: ISPH-0590US.P1
; CURRENT APPLICATION NUMBER: US/10/619,253
; CURRENT FILING DATE: 2003-07-15
; PRIOR APPLICATION NUMBER: US 09/918,187
; PRIOR FILING DATE: 2001-07-30
; NUMBER OF SEQ ID NOS: 418
; SEQ ID NO 124
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Antisense Oligonucleotide
US-10-619-253-124

Query Match 30.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 1;4; Mismatches 0; Indels 0; Gaps 0;
Matches 20; Conservative 0; Prior Application Number: US 09/918,187
Prior Filing Date: 2001-07-30
Number of Seq ID NOS: 418
Seq ID No 125
Length: 20
Type: DNA
Organism: Artificial Sequence
Feature:
Other Information: Antisense Oligonucleotide
US-10-619-253-125

RESULT 5
US-10-619-253-125/C
; Sequence 125, Application US/10619253
; Publication No. US20050043256A1
; GENERAL INFORMATION:
; APPLICANT: Rosanne M. Crooke
; TITLE OF INVENTION: ANTISENSE MODULATION OF STEAROYL-COA DESATURASE EXPRESSION
; FILE REFERENCE: ISPH-0590US.P1
; CURRENT APPLICATION NUMBER: US/10/619,253
; CURRENT FILING DATE: 2003-07-15
; PRIOR APPLICATION NUMBER: US 09/918,187
; PRIOR FILING DATE: 2001-07-30
; NUMBER OF SEQ ID NOS: 418
; SEQ ID NO 125
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Antisense Oligonucleotide
US-10-619-253-125

Query Match 30.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 1;4; Mismatches 0; Indels 0; Gaps 0;
Matches 20; Conservative 0; Prior Application Number: US 09/918,187
Prior Filing Date: 2001-07-30
Number of Seq ID NOS: 418
Seq ID No 125
Length: 20
Type: DNA
Organism: Artificial Sequence
Feature:
Other Information: Antisense Oligonucleotide
US-10-619-253-125

Search completed: "March 27, 2006, 08:30:11
Job time : 0.001 secs

```


DT 29-JAN-2004 (first entry)
 XX XX DE Stearyl-CoA desaturase siNA oligonucleotide SEQ ID NO:622.
 XX XX KW short interfering nucleic acid; siNA; downregulation; inhibition; SCD;
 KW stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
 KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 OS Synthetic.
 XX XX PN WO2003070885-A2.
 XX XX PD 28-AUG-2003.
 XX XX PF 13-FEB-2003; 2003WO-US004317.
 XX XX PR 20-FEB-2002; 2002US-358380P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 09-SEP-2002; 2002US-0409293P.
 PR 20-SEP-2002; 2002US-0412204P.
 PR 20-JAN-2003; 2003US-0440129P.
 XX XX PA (RIBO-) RIBOZYME PHARM INC.
 XX XX PI McSwiggen, J., Beigelman, L., Thompson, J.;
 DR WPI; 2003-721687/68.
 XX XX PT New short interfering nucleic acid, useful e.g. for treatment and
 PT diagnosis of obesity or diabetes, downregulates expression of the
 XX stearoyl-CoA desaturase gene.
 PS Disclosure; SEQ ID NO 622; 139pp; English.
 XX XX DR WPI; 2003-721687/68.
 PT New short interfering nucleic acid, useful e.g. for treatment and
 PT diagnosis of obesity or diabetes, downregulates expression of the
 XX stearoyl-CoA desaturase gene.
 PS Disclosure; SEQ ID NO 624; 139pp; English.
 CC The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of siNA; (2) kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or complexes of siNA; and (4) vectors that express siNA. SCD inhibiting siNA have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and virucide activities. The siNA can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity; diabetes (types I and II), atherosclerosis, cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD siNA, which is used in the exemplification of the present invention.
 XX SQ Sequence 21 BP; 3 A; 7 C; 2 G; 2 T; 7 U; 0 Other;
 Query Match 31.8%; Score 21; DB 1; Length 21;
 Best Local Similarity 66.7%; Pred. No. 5,4;
 Matches 14; Conservative 7; Mismatches 0; Indels 0; Gaps 0;
 QY 3027 CTGACCACTGCTCTCTTT 3047
 DB 1 CUGAACACUGCUCUCUUTT 21
 RESULT 3
 ADB27659
 ID ADB27659 standard; RNA; 21 BP.
 XX AC ADB27659;
 DT 29-JAN-2004 (first entry)

XX DR Stearyl-CoA desaturase siNA oligonucleotide SEQ ID NO:624.
 XX KW short interfering nucleic acid; siNA; downregulation; inhibition; SCD;
 KW stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
 KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 OS Synthetic.
 XX XX PN WO2003070885-A2.
 XX XX PD 28-AUG-2003.
 XX XX PF 13-FEB-2003; 2003WO-US004317.
 XX XX PR 20-FEB-2002; 2002US-358380P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 09-SEP-2002; 2002US-0409293P.
 PR 20-SEP-2002; 2002US-0412204P.
 PR 15-JAN-2003; 2003US-0440129P.
 XX XX PA (RIBO-) RIBOZYME PHARM INC.
 XX XX PI McSwiggen, J., Beigelman, L., Thompson, J.;
 DR WPI; 2003-721687/68.
 XX XX PT New short interfering nucleic acid, useful e.g. for treatment and
 PT diagnosis of obesity or diabetes, downregulates expression of the
 XX stearoyl-CoA desaturase gene.
 PS Disclosure; SEQ ID NO 624; 139pp; English.
 CC The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of siNA; (2) kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or complexes of siNA; and (4) vectors that express siNA. SCD inhibiting siNA have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and virucide activities. The siNA can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity; diabetes (types I and II), atherosclerosis, cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD siNA, which is used in the exemplification of the present invention.
 XX SQ Sequence 21 BP; 3 A; 7 C; 2 G; 2 T; 7 U; 0 Other;
 Query Match 31.8%; Score 21; DB 1; Length 21;
 Best Local Similarity 66.7%; Pred. No. 5,4;
 Matches 14; Conservative 7; Mismatches 0; Indels 0; Gaps 0;
 QY 3027 CTGACCACTGCTCTCTTT 3047
 DB 1 CUGAACACUGCUCUCUUTT 21
 RESULT 4
 ABZ7075/C
 ID ABZ7075 standard; DNA; 20 BP.
 XX AC ABZ7075;
 XX DT 07-MAY-2003 (first entry)

DE Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:30.

XX Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;

KW 2'-MOE; cardiovascular; antiarrhythmic; antilipemic; cytostatic;

KW antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;

KW abnormal lipid metabolism; abnormal cholesterol metabolism; infection;

KW atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.

XX Homo sapiens.

OS Synthetic.

XX

FR Location/Qualifiers

FT modified_base 1..20

FT /tag a

FT /mod_base= OTHER

FT /note= "phosphorothioate linkages"

FT modified_base 1..5

FT /*tag= b

FT /mod_base= OTHER

FT /note= "2'-O-methoxyethyl (2'-MOE) gapmer"

FT modified_base 16..20

FT /*tag= c

FT /mod_base= OTHER

FT /note= "2'-O-methoxyethyl (2'-MOE) gapmer"

XX WO2003012031-A2.

XX 13-FEB-2003.

XX 16-JUL-2002; 2002WO-US022676.

XX 30-JUL-2001; 2001US-00918187.

XX (ISIS-) ISIS PHARM INC.

XX Crooke RM, Graham MJ;

PI Crooke RM, Graham MJ;

XX WPI; 2003-248160/24.

DR

XX New antisense oligonucleotides targeted to nucleic acids encoding human stearoyl-CoA desaturase, useful for treating diseases associated with the desaturase, e.g. atherosclerosis, and in diagnostic and research applications.

XX

PS Claim 3; Page 94; 117pp; English.

XX

CC The present invention describes a compound (I) that is 8-50 nucleobases in length targeted to a nucleic acid molecule encoding human stearoyl-CoA desaturase, and which specifically hybridises with and inhibits the expression of human stearoyl-CoA desaturase, or which specifically hybridises with at least an 8-nucleobase portion of an active site on a nucleic acid molecule encoding human stearoyl-CoA desaturase. Human stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipemic, cardiovascular, antiatherosclerotic, cytostatic and antiinflammatory activities, and can be used in antisense therapy. The antisense compounds (I) can be used for modulating the expression of human stearoyl-CoA desaturase and for treating diseases or conditions associated with expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or cholesterol metabolism, atherosclerosis, or cardiovascular diseases. The antisense compounds (I) can also be used for diagnostics, therapeutics and prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits, and in distinguishing between functions of various members of a biological pathway. The present sequence represents a human stearoyl-CoA desaturase inhibiting chimeric phosphorothioate antisense oligonucleotide, which is given in an example from the present invention.

XX Sequence 20 BP; 4 A; 6 C; 4 G; 6 T; 0 U; 0 Other;

SQ Score 30.3%; DB 1; Length 20;

Query Match Best Local Similarity 100.0%; Pred. No. 6.9; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 303 CTGCTCTTGTGAAGTA 3054

Db 20 CTGCTCTTGTGAAGTA 1

XX

RESULT 5

QY 3011 AGATGCTCAGGTCACTGA 3030

Db 20 AGATGCTCAGGTCACTGA 1

XX AUD1821/C

ID AUD1821 standard; DNA; 20 BP.

XX

AC AUD1821;

XX

DT 05-MAY-2005 (first entry)

XX

DE Human Stearoyl-CoA desaturase antisense oligonucleotide ISIS 300912.

XX Antisense; gene therapy; Stearoyl-CoA desaturase; hypertension; KW hypotensive; non-insulin dependent diabetes; antidiabetic; KW endocrine disease; gastrointestinal disease; metabolic disorder; KW cytostatic; neoplasm; obesity; anorectic; nutritional disorder; KW Cardiovascular disease; Dermatological disease; immune disorder; KW Neurological disease; ss.

XX Homo sapiens.

OS Synthetic.

XX WO2005014607-A2.

XX 17-FEB-2005.

XX 15-JUL-2004; 2004WO-US018932.

XX 15-JUL-2003; 2003US-00619253.

XX (ISIS-) ISIS PHARM INC.

XX Crooke RM, Graham MJ;

XX WPI; 2005-163213/17.

XX New compound comprising 8-50 nucleobases targeted to a nucleic acid molecule encoding stearoyl-CoA desaturase, useful in preparing a composition for treating a condition associated with stearoyl-CoA desaturase, e.g., obesity.

XX

PS Claim 1; SEQ ID NO 125; 256pp; English.

XX

CC The invention relates to a new compound, which is targeted to a nucleic acid molecule encoding stearoyl-CoA desaturase and inhibits its expression. The compound is useful in preparing a composition for treating an animal having a disease or condition associated with stearoyl-CoA desaturase, e.g. cardiovascular disorder, obesity, non-insulin dependent diabetes mellitus, a skin disease, hypertension, a neurological disease, an immune disorder or cancer. The present sequence represents a human stearoyl-CoA desaturase antisense oligonucleotide.

XX Sequence 20 BP; 9 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

SQ Score 30.3%; DB 1; Length 20;

Query Match Best Local Similarity 100.0%; Pred. No. 6.9; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 303 CTGCTCTTGTGAAGTA 3054

Db 20 CTGCTCTTGTGAAGTA 1

XX

RESULT 6

QY ADX18220/C

ID ADX18220 standard; DNA; 20 BP.

XX

AC ADX18220;

XX

DT 05-MAY-2005 (first entry)

XX

Query Match Best Local Similarity 100.0%; Pred. No. 6.9; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

SQ Score 30.3%; DB 1; Length 20;

Query Match Best Local Similarity 100.0%; Pred. No. 6.9; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 303 CTGCTCTTGTGAAGTA 3054

Db 20 CTGCTCTTGTGAAGTA 1

XX

DE	Human Stearyl-CoA desaturase antisense oligonucleotide ISIS 300911.
XX	XX
KW	Antisense; gene therapy; Stearyl-CoA desaturase; hypertension;
KW	hypertensive; non-insulin dependent diabetes; antidiabetic;
KW	endocrine disease; gastrointestinal disease; metabolic disorder; cancer;
KW	cytostatic; neoplasm; obesity; anorectic; nutritional disorder;
KW	Cardiovascular disease; Dermatological disease; Immune disorder;
KW	Neurological disease; ss.
OS	Homo sapiens.
OS	Synthetic.
XX	XX
PN	WO2005014607-A2.
XX	XX
PD	17-FEB-2005.
XX	XX
PT	15-JUL-2004; 2004WO-US018932.
XX	XX
PR	15-JUL-2003; 2003US-00619253.
PA	(ISIS-) ISIS PHARM INC.
XX	XX
PI	Crooke RM, Graham MJ;
XX	XX
DR	WPI; 2005-163213/17.
XX	XX
PT	New compound comprising 8-50 nucleobases targeted to a nucleic acid
PT	molecule encoding Stearyl-CoA desaturase, useful in preparing a
PT	composition for treating a condition associated with Stearyl-CoA
PT	desaturase, e.g., obesity.
XX	XX
PS	Example 15; SEQ ID NO 30; 256pp; English.
XX	XX
CC	The invention relates to a new compound, which is targeted to a nucleic
CC	acid molecule encoding Stearyl-CoA desaturase and inhibits its
CC	expression. The compound is useful in preparing a composition for
CC	treating an animal having a disease or condition associated with Stearyl-
CC	-CoA desaturase, e.g. cardiovascular disorder, obesity, non-insulin-
CC	dependent diabetes mellitus, a skin disease, hypertension, a neurological
CC	disease, an immune disorder or cancer. The present sequence represents a
CC	human Stearyl-CoA desaturase antisense oligonucleotide.
XX	XX
SQ	Sequence 20 BP; 4 A; 5 C; 6 G; 5 T; 0 U; 0 Other;
CC	Query Match 30.3%; Score 20; DB 1; Length 20;
CC	Best Local Similarity 100.0%; Pred. No. 6.9;
CC	Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
CC	CC
XX	XX
QY	3020 AGGTTCACTGAACCACTGCT 3039
Db	20 AGGGTCACTGAACCACTGCT 1
XX	XX
RESULT 7	RESULT 8
ADX18126/C	AD227674/C
ID ADX18126 standard; DNA; 20 BP.	ID AD227674 standard; RNA; 21 BP.
XX	XX
AC	AD227674;
XX	XX
DT	29-JAN-2004 (first entry)
XX	XX
DE	Stearoyl-CoA desaturase siNA oligonucleotide SEQ ID NO:629.
XX	XX
KW	short interfering nucleic acid; siNA; downregulation; inhibition; SCD;
KW	Stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
KW	antiatherosclerotic; cytostatic; virucide; obesity; diabetes;
KW	atherosclerosis; cancer; viral infection; drug screening;
KW	genetic engineering; pharmacogenomic; gene mapping; ss.
XX	XX
OS	Synthetic.
XX	XX
PN	WO2003070885-A2.
XX	XX
PD	20-AUG-2003.
XX	XX
PT	13-FEB-2003; 2003WO-US004317.
XX	XX
PR	20-FEB-2002; 2002US-0358580P.
PR	11-MAR-2003; 2002US-0363124P.
PR	06-JUN-2002; 2002US-0386782P.
PR	29-AUG-2002; 2002US-0405784P.
PR	05-SEP-2002; 2002US-0405378P.
PR	09-SEP-2002; 2002US-0402939P.

PR 15-JAN-2003; 2003US-0440129P.
 XX
 XX
 PA (RIBO-) RIBOZYME PHARM INC.
 XX
 PI McSwiggen J, Beigelman L, Thompson J;
 XX
 DR WPI; 2003-721687/68.
 XX
 PT New short interfering nucleic acid, useful e.g. for treatment and
 diagnosis of obesity or diabetes, downregulates expression of the
 stearyl-CoA desaturase gene.
 XX
 PS Disclosure; SEQ ID NO 629; 139pp; English.
 XX
 CC The present invention describes a short interfering nucleic acid (sINA)
 CC that downregulates expression of the SCD (stearyl-CoA desaturase) gene
 CC by RNA interference. Also described: (1) modulating expression of SCD
 CC genes in cells, tissue explants or organisms by introduction of sINA; (2)
 CC kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or
 CC complexes of sINA, and (4) vectors that express sINA. SCD inhibiting
 CC sINAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and
 CC virucide activities. The sINAs can be used to modulate expression of SCD
 CC genes, in cells, tissue explants or organisms, e.g. for treating obesity;
 CC diabetes (types I and II); atherosclerosis; cancer and viral infections.
 CC They can also be used for drug screening; diagnosis; target
 CC identification and validation; genetic engineering; pharmacogenomics;
 CC studying gene function and gene mapping (e.g. of single-nucleotide
 CC polymorphisms). The present sequence represents an SCD sINA, which is
 CC used in the exemplification of the present invention.
 XX
 SQ Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 Other;
 * Best Match 30.3%; Score 20; DB 1; Length 21;
 Best Local Similarity 100.0%; Pred. No. 6.6;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 3026 ACTGAACTCTGCTCTCTT 3045
 Db 20 ACTGAACACTGCTCTT 1
 XX
 RESULT 9
 ADE27670/c
 ID ADE27670 standard; RNA; 21 BP.
 XX
 AC ADE27670;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Stearyl-Coa desaturase sINA oligonucleotide SEQ ID NO:625.
 XX
 KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
 KW Stearyl-Coa desaturase; RNA interference; anorectic; antidiabetic;
 KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 XX
 OS Synthetic.
 XX
 PN WO2003070885-A2.
 XX
 PD 28-AUG-2003.
 XX
 PP 13-FEB-2003; 2003WO-US004317.
 XX
 PR 20-FEB-2002; 2002US-0358890P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 09-SEP-2002; 2002US-0409293P.
 PR 20-SEP-2002; 2002US-04122304P.
 PR 20-SEP-2002; 2002US-0412204P.
 PR 15-JAN-2003; 2003US-0440129P.

XX
 XX
 PA (RIBO-) RIBOZYME PHARM INC.
 XX
 PI McSwiggen J, Beigelman L, Thompson J;
 XX
 DR WPI; 2003-721687/68.
 XX
 PT New short interfering nucleic acid, useful e.g. for treatment and
 diagnosis of obesity or diabetes, downregulates expression of the
 stearyl-CoA desaturase gene.
 XX
 PS Disclosure; SEQ ID NO 625; 139pp; English.
 XX
 CC The present invention describes a short interfering nucleic acid (sINA)
 CC that downregulates expression of the SCD (stearyl-CoA desaturase) gene
 CC by RNA interference. Also described: (1) modulating expression of SCD
 CC genes in cells, tissue explants or organisms by introduction of sINA; (2)
 CC kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or
 CC complexes of sINA, and (4) vectors that express sINA. SCD inhibiting
 CC sINAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and
 CC virucide activities. The sINAs can be used to modulate expression of SCD
 CC genes, in cells, tissue explants or organisms, e.g. for treating obesity;
 CC diabetes (types I and II); atherosclerosis; cancer and viral infections.
 CC They can also be used for drug screening; diagnosis; target
 CC identification and validation; genetic engineering; pharmacogenomics;
 CC studying gene function and gene mapping (e.g. of single-nucleotide
 CC polymorphisms). The present sequence represents an SCD sINA, which is
 CC used in the exemplification of the present invention.
 XX
 SQ Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 Other;
 * Best Match 30.3%; Score 20; DB 1; Length 21;
 Best Local Similarity 100.0%; Pred. No. 6.6;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 3025 ACTGAACTCTGCTCTCTT 3045
 Db 20 ACTGAACACTGCTCTT 1
 XX
 RESULT 10
 ADE27672/c
 ID ADE27672 standard; RNA; 21 BP.
 XX
 AC ADE27672;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Stearyl-Coa desaturase sINA oligonucleotide SEQ ID NO:627.
 XX
 KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
 KW Stearyl-Coa desaturase; RNA interference; anorectic; antidiabetic;
 KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 XX
 OS Synthetic.
 XX
 PN WO2003070885-A2.
 XX
 PD 28-AUG-2003.
 XX
 PP 13-FEB-2003; 2003WO-US004317.
 XX
 PR 20-FEB-2002; 2002US-0358580P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 20-SEP-2002; 2002US-04122304P.
 PR 15-JAN-2003; 2003US-0440129P.

PA (RIBO-) RIBOZYME PHARM INC. XX
 XX PI McSwiggen J., Beigelman L., Thompson J.; XX
 XX DR WPI; 2003-721687/68. XX
 XX PT New short interfering nucleic acid, useful e.g. for treatment and XX
 XX diagnosis of obesity or diabetes, downregulates expression of the XX
 XX stearoyl-CoA desaturase gene. XX
 XX PS Disclosure; SEQ ID NO 627; 139pp; English. XX
 XX CC The present invention describes a short interfering nucleic acid (sINA) XX
 XX that downregulates expression of the SCD (stearoyl-CoA desaturase) gene XX
 XX by RNA interference. Also described: (1) modulating expression of SCD XX
 XX genes in cells, tissue explants or organisms by introduction of sINA; (2) XX
 XX kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or XX
 XX complexes of sINA; and (4) vectors that express sINA. SCD inhibiting XX
 XX sINAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and XX
 XX virucide activities. The sINAs can be used to modulate expression of SCD XX
 XX genes in cells, tissue explants or organisms, e.g. for treating obesity; XX
 XX diabetes (types I and II); atherosclerosis; cancer and viral infections. XX
 XX They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; XX
 XX studying gene function and gene mapping (e.g. of single-nucleotide XX
 XX polymorphisms). The present sequence represents an SCD sINA, which is XX
 XX used in the exemplification of the present invention. XX
 XX Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 Other; XX
 XX 'Query Match 30.3%; Score 20; DB 1; Length 21; XX
 XX Best Local Similarity 100.0%; Pred. No. 6.6; 0; Mismatches 0; Indels 0; Gaps 0; XX
 XX Matches 20; Conservative 0; XX
 Qy 3026 ACTGAAACCAGCTCTCTCT 3045
 Db 20 ACTGAAACCAGCTCTCTCT 1
 XX
 RESULT 11
 ADE87675/C
 ID ADE87675 standard; RNA; 21 BP.
 XX
 AC ADE87675;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Stearoyl-CoA desaturase sINA oligonucleotide SEQ ID NO:630.
 XX
 KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
 KW stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
 KW antiarteriosclerotic; cytostatic; virucide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 XX
 OS Synthetic.
 XX
 PN WO2003070885-A2.
 XX
 DD 28-AUG-2003.
 XX
 PR 13-FEB-2003; 2003WO-US004317.
 XX
 PR 20-FEB-2002; 2002US-0358580P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406782P.
 PR 05-SEP-2002; 2002US-0408318P.
 PR 09-SEP-2002; 2002US-0409233P.
 PR 20-SEP-2002; 2002US-0413049P.
 PR 15-JAN-2003; 2003US-0440129P.
 XX
 PR (RIBO-) RIBOZYME PHARM INC.

XX PI McSwiggen J., Beigelman L., Thompson J.; XX
 XX DR WPI; 2003-721687/68. XX
 XX PT New short interfering nucleic acid, useful e.g. for treatment and XX
 XX diagnosis of obesity or diabetes, downregulates expression of the XX
 XX stearoyl-CoA desaturase gene. XX
 XX PS Disclosure; SEQ ID NO 630; 139pp; English. XX
 XX CC The present invention describes a short interfering nucleic acid (sINA) XX
 XX that downregulates expression of the SCD (stearoyl-CoA desaturase) gene XX
 XX by RNA interference. Also described: (1) modulating expression of SCD XX
 XX genes in cells, tissue explants or organisms by introduction of sINA; (2) XX
 XX kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or XX
 XX complexes of sINA; and (4) vectors that express sINA. SCD inhibiting XX
 XX sINAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and XX
 XX virucide activities. The sINAs can be used to modulate expression of SCD XX
 XX genes in cells, tissue explants or organisms, e.g. for treating obesity; XX
 XX diabetes (types I and II); atherosclerosis; cancer and viral infections. XX
 XX They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; XX
 XX studying gene function and gene mapping (e.g. of single-nucleotide XX
 XX polymorphisms). The present sequence represents an SCD sINA, which is XX
 XX used in the exemplification of the present invention. XX
 XX Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 Other; XX
 XX 'Query Match 30.3%; Score 20; DB 1; Length 21; XX
 XX Best Local Similarity 100.0%; Pred. No. 6.6; 0; Mismatches 0; Indels 0; Gaps 0; XX
 XX Matches 20; Conservative 0; XX
 Qy 3026 ACTGAAACCAGCTCTCTCT 3045
 Db 20 ACTGAAACCAGCTCTCTCT 1
 XX
 RESULT 12
 ADO14557/C
 ID ADO14557 standard; RNA; 21 BP.
 XX
 AC ADO14557;
 XX
 DT 01-JUL-2004 (first entry)
 XX
 DE Human interleukin-2-targeted sINA antisense strandSEQ ID NO:303.
 XX
 KW cytostatic; vasotropic; nephrotoxic; cancer; restenosis;
 KW polycystic kidney disease; RNA interference;
 KW short interfering nucleic acid; sINA; short interfering RNA; siRNA;
 KW double-stranded RNA; micro-RNA; miRNA; short hairpin RNA; shRNA;
 KW expression modulation; gene therapy; drug screening; diagnosis;
 KW therapeutic target identification; pharmacogenomics;
 KW gene function analysis; gene mapping; human; interleukin-2; ss.
 XX
 OS Homo sapiens.
 XX
 PR 13-FEB-2003; 2003WO-US004317.
 XX
 PR 20-FEB-2002; 2002US-0358580P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406782P.
 PR 05-SEP-2002; 2002US-0408318P.
 PR 09-SEP-2002; 2002US-0409233P.
 PR 20-SEP-2002; 2002US-0413049P.
 PR 15-JAN-2003; 2003US-0440129P.
 XX
 PR (RIBO-) RIBOZYME PHARM INC.

PR 09-SEP-2002; 2002US-040293P.
 PR 15-JAN-2003; 2003US-0440129P.
 PA (RIBO-) RIBOZYME PHARM INC.
 XX
 PI Mcswiggen, J., Beigelman, L., Thompson, J.;
 DR WPI; 2003-731546/69.
 PT New short interfering nucleic acid, useful e.g. for treatment and
 diagnosis of cancer, downregulates expression of an interleukin gene.
 PS Disclosure; SEQ ID NO 305; 138pp; English.
 XX
 CC The invention relates to short interfering nucleic acids (siRNA) which
 CC downregulate expression of the human interleukin-2 gene by RNA
 CC interference. The siRNAs may or may not comprise ribonucleotides and may
 CC be double or single stranded. They further comprise sense and antisense
 CC regions, or alternatively are assembled from a sense oligonucleotide and
 CC an antisense oligonucleotide. Specifically, the siRNAs include short
 CC interfering RNA (siRNA), double-stranded RNA, micro-RNA (miRNA) and short
 CC hairpin RNA (shRNA). The siRNAs can be unmodified or chemically modified,
 CC can contain deoxyribonucleotides, and can be chemically synthesised,
 CC expressed from a vector or enzymatically synthesised. The invention also
 CC relates to kits for the in vitro or in vivo delivery of siRNA, conjugates
 CC and/or complexes of siRNA, and vectors that express siRNA. The siRNAs are
 CC used to modulate expression of the interleukin-2 gene in cells, tissue
 CC explants or organisms (e.g., by ex vivo gene therapy), or in grafts and
 CC transplants for the treatment of a variety of conditions. They may be
 CC used for treating cancer, restenosis and polycystic kidney disease. The
 CC siRNAs are also useful for drug screening, diagnosis, therapeutic target
 CC identification and validation, genetic engineering, pharmacogenomics,
 CC polymorphisms). The present sequence represents a single nucleotide
 CC of an exemplary chemically modified human interleukin-2-targeted double-
 CC stranded siRNA.
 XX
 SQ Sequence 21 BP; 7 A; 2 C; 7 G; 2 T; 3 U; 0 other;
 Query Match 30-3%; Score 20; DB 1; Length 21;
 Best Local Similarity 100.0%; Pred. No. 6.6;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 3026 ACTGAAACCAGCTCTCTCT 3045
 QD 20 ACTGAAACCAGCTCTCTCT 1
 PS Disclosure; SEQ ID NO 306; 138pp; English.
 XX
 PR 11-FEB-2003; 2003WO-US004566.
 XX
 PR 20-FEB-2002; 2002US-0358580P.
 PR 11-MAR-2002; 2002US-0353124P.
 PR 06-JUN-2002; 2002US-0366782P.
 PR 29-AUG-2002; 2002US-0405784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 09-SEP-2002; 2002US-040293P.
 PR 15-JAN-2003; 2003US-0440129P.
 PA (RIBO-) RIBOZYME PHARM INC.
 XX
 PI Mcswiggen, J., Beigelman, L., Thompson, J.;
 DR WPI; 2003-731546/69.
 XX
 AC ADO14560;
 XX
 DT 01-JUL-2004 (first entry)
 XX
 DE Human interleukin-2-targeted siRNA antisense strandsSEQ ID NO:306.
 XX
 KW cytotoxic; vasotropic; nephrotropic; cancer; restenosis;
 KW polycystic kidney disease; RNA; interference;
 KW short interfering nucleic acid; siRNA; short interfering RNA; siRNA;
 KW double-stranded RNA; micro-RNA; miRNA; short hairpin RNA; shRNA;
 KW expression modulation; gene therapy; drug screening; diagnosis;
 KW therapeutic target identification; pharmacogenomics;
 KW gene function analysis; gene mapping; human; interleukin-2; ss.
 XX
 OS Homo sapiens.
 XX
 FH Key modified_base
 FT modified_base 1..8 /*tag= a
 FT /mod_base= OTHER
 FT /note= "Deoxy base"
 PS Disclosure; SEQ ID NO 305; 138pp; English.
 XX
 CC The invention relates to short interfering nucleic acids (siRNA) which
 CC downregulate expression of the human interleukin-2 gene by RNA
 CC interference. The siRNAs may or may not comprise ribonucleotides and may
 CC be double or single stranded. They further comprise sense and antisense
 CC regions, or alternatively are assembled from a sense oligonucleotide and
 CC an antisense oligonucleotide. Specifically, the siRNAs include short
 CC interfering RNA (siRNA), double-stranded RNA, micro-RNA (miRNA) and short
 CC hairpin RNA (shRNA). The siRNAs can be unmodified or chemically modified,
 CC can contain deoxyribonucleotides, and can be chemically synthesised,
 CC expressed from a vector or enzymatically synthesised. The invention also
 CC relates to kits for the in vitro or in vivo delivery of siRNA, conjugates
 CC and/or complexes of siRNA, and vectors that express siRNA. The siRNAs are
 CC used to modulate expression of the interleukin-2 gene in cells, tissue
 CC explants or organisms (e.g., by ex vivo gene therapy), or in grafts and
 CC transplants for the treatment of a variety of conditions. They may be
 CC used for treating cancer, restenosis and polycystic kidney disease. The
 CC siRNAs are also useful for drug screening, diagnosis, therapeutic target

PA (RIBO-) RIBOZYME PHARM INC. XX
 XX PT McEwigen J, Beigelman L, Thompson J; XX
 XX DR WPI; 2003-721687/68. XX
 XX PT New short interfering nucleic acid, useful e.g. for treatment and XX
 XX diagnosis of obesity or diabetes, downregulates expression of the XX
 XX stearyl-CoA desaturase gene. XX
 XX PS Example 3; SEQ ID NO 458; 139pp; English. XX
 XX
 CC The present invention describes a short interfering nucleic acid (sINA) XX
 CC that downregulates expression of the SCD (stearyl-CoA desaturase) gene XX
 CC by RNA interference. Also described: (1) modulating expression of SCD XX
 CC genes in cells, tissue explants or organisms by introduction of sINA; (2) XX
 CC kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or XX
 CC complexes of sINA; and (4) vectors that express sINA. SCD inhibiting XX
 CC sINAs have anorectic, antidiabetic, cytostatic and XX
 CC viricide activities. The sINA can be used to modulate expression of SCD XX
 CC genes, in cells, tissue explants or organisms, e.g. for treating obesity, XX
 CC diabetes (types I and II); atherosclerosis; cancer and viral infections. XX
 CC They can also be used for drug screening, diagnosis, target XX
 CC identification and validation; genetic engineering; pharmacogenomics; XX
 CC studying gene function and gene mapping (e.g. of single-nucleotide XX
 CC polymorphisms). The present sequence represents an SCD sINA, which is XX
 CC used in the exemplification of the present invention. XX
 XX
 SQ Sequence 19 BP; 3 A; 5 C; 5 G; 0 T; 6 U; 0 other; XX
 SQ Query Match 28.8%; Score 19; DB 1; Length 19; XX
 • Best Local Similarity 100.0%; Pred. No. 8.9%; XX
 • Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0; XX
 QY 3009 ACAGATGCTCAGGTCAC 3027
 Dp 19 ACAGATGCTCAGGTCAC 1
 XX
 RESULT 19
 ADE27225
 ID ADE27225 standard; RNA; 19 BP.
 XX
 AC ADE27225;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Stearyl-CoA desaturase sINA oligonucleotide SEQ ID NO:169.
 XX
 KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
 KW stearyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
 KW anti-atherosclerotic; cytostatic; viricide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 XX
 OS Synthetic.
 XX
 PN WO2003070885-A2.
 XX
 PD 28-AUG-2003.
 XX
 PF 13-FEB-2003; 2003WO-US004317.
 XX
 PR 20-FEB-2002; 2002US-0358580P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 09-SEP-2002; 2002US-0409233P.
 PR 20-SEP-2002; 2002US-0412049P.
 PR 15-JAN-2003; 2003US-0440129P.
 XX
 PA (RIBO-) RIBOZYME PHARM INC. XX
 XX PT McEwigen J, Beigelman L, Thompson J; XX
 XX DR WPI; 2003-721687/68. XX
 XX PT New short interfering nucleic acid, useful e.g. for treatment and XX
 XX diagnosis of obesity or diabetes, downregulates expression of the XX
 XX stearyl-CoA desaturase gene. XX
 XX PS Example 3; SEQ ID NO 169; 139pp; English. XX
 XX
 CC The present invention describes a short interfering nucleic acid (sINA) XX
 CC that downregulates expression of the SCD (stearyl-CoA desaturase) gene XX
 CC by RNA interference. Also described: (1) modulating expression of SCD XX
 CC genes in cells, tissue explants or organisms by introduction of sINA; (2) XX
 CC kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or XX
 CC complexes of sINA; and (4) vectors that express sINA. SCD inhibiting XX
 CC sINAs have anorectic, antidiabetic, cytostatic and XX
 CC viricide activities. The sINA can be used to modulate expression of SCD XX
 CC genes, in cells, tissue explants or organisms, e.g. for treating obesity, XX
 CC diabetes (types I and II); atherosclerosis; cancer and viral infections. XX
 CC They can also be used for drug screening, diagnosis, target XX
 CC identification and validation; genetic engineering; pharmacogenomics; XX
 CC studying gene function and gene mapping (e.g. of single-nucleotide XX
 CC polymorphisms). The present sequence represents an SCD sINA, which is XX
 CC used in the exemplification of the present invention. XX
 XX
 SQ Sequence 19 BP; 3 A; 7 C; 2 G; 0 T; 7 U; 0 Other; XX
 SQ Query Match 28.8%; Score 19; DB 1; Length 19; XX
 • Best Local Similarity 63.2%; Pred. No. 8.9%; XX
 • Matches 12; Conservative 7; Mismatches 0; Indels 0; Gaps 0; XX
 QY 3027 CTGAAACACTCTCTCTCT 3045
 Dp 1 CUGAACCACTGCUUCUUCU 19
 XX
 RESULT 20
 ADE27223
 ID ADE27223 standard; RNA; 19 BP.
 XX
 AC ADE27223;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Stearyl-CoA desaturase sINA oligonucleotide SEQ ID NO:167.
 XX
 KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
 KW stearyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
 KW anti-atherosclerotic; cytostatic; viricide; obesity; diabetes;
 KW atherosclerosis; cancer; viral infection; drug screening;
 KW genetic engineering; pharmacogenomic; gene mapping; ss.
 XX
 OS Synthetic.
 XX
 PN WO2003070885-A2.
 XX
 PD 28-AUG-2003.
 XX
 PF 13-FEB-2003; 2003WO-US004317.
 XX
 PR 20-FEB-2002; 2002US-0358580P.
 PR 11-MAR-2002; 2002US-0363124P.
 PR 06-JUN-2002; 2002US-0386782P.
 PR 29-AUG-2002; 2002US-0406784P.
 PR 05-SEP-2002; 2002US-0408378P.
 PR 09-SEP-2002; 2002US-0409233P.
 PR 20-SEP-2002; 2002US-0412049P.
 PR 15-JAN-2003; 2003US-0440129P.
 XX
 PA (RIBO-) RIBOZYME PHARM INC.

XX
PT McSwiggen, J, Beigelman, L, Thompson, J;
XX
XX
DR
XX
WPI; 2003-721687/68.

PT New short interfering nucleic acid, useful e.g. for treatment and
diagnosis of obesity or diabetes, downregulates expression of the
stearoyl-CoA desaturase gene.

PS Example 3; SEQ ID NO 167; 139pp; English.

XX
CC The present invention describes a short interfering nucleic acid (sINA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of sINA; (2) kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or complexes of sINA; and (4) vectors that express sINA. SCD inhibiting sINAs have anorectic, antidiabetic, antiatherosclerotic, cytostatic and virucide activities. The sINAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; generic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD sINA, which is used in the exemplification of the present invention.

XX
SQ Sequence 19 BP; 3 A; 9 C; 4 G; 0 T; 3 U; 0 Other;

* Query Match 28.8%; Score 19; DB 1; Length 19;
- Best Local Similarity 84.2%; Pred. No. 8.9%;
- Matches 16; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

OY 2991 GGCAGCTCCCTCTGACA 3009
Db 1 GCGAGCUCCUCUGACA 19

RESULT 21

ADE2713/c
ID ADE2713 standard; RNA; 19 BP.

XX
AC ADE2713;
XX
DT 29-JAN-2004 (first entry)

DE Stearoyl-CoA desaturase sINA oligonucleotide SEQ ID NO:457.
XX
KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
atherosclerosis; cytostatic; virucide; obesity; diabetes;
genetic engineering; pharmacogenomic; gene mapping; ss.
OS Synthetic.

XX
PN WO2003070885-A2.
XX
PD 28-AUG-2003.
XX
PF 13-FEB-2003; 2003WO-US004317.

XX
PR 20-FEB-2002; 2002US-0158580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX

PI McSwiggen, J, Beigelman, L, Thompson, J;
XX
XX
DR
XX
WPI; 2003-721687/68.

PT New short interfering nucleic acid, useful e.g. for treatment and
diagnosis of obesity or diabetes, downregulates expression of the
stearoyl-CoA desaturase gene.

PS Example 3; SEQ ID NO 457; 139pp; English.

XX
CC The present invention describes a short interfering nucleic acid (sINA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of sINA; (2) kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or complexes of sINA; and (4) vectors that express sINA. SCD inhibiting sINAs have anorectic, antidiabetic, antiatherosclerotic, cytostatic and virucide activities. The sINAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; generic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD sINA, which is used in the exemplification of the present invention.

XX
SQ Sequence 19 BP; 3 A; 4 C; 9 G; 0 T; 3 U; 0 Other;

* Query Match 28.8%; Score 19; DB 1; Length 19;
- Best Local Similarity 100.0%; Pred. No. 8.9%;
- Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 2991 GGCAGCTCCCTCTGACA 3009
Db 19 GCGAGCTCCCTCTGACA 1

RESULT 22

ADE2724
ID ADE2724 standard; RNA; 19 BP.

XX
AC ADE2724;
XX
DT 29-JAN-2004 (first entry)

DE Stearoyl-CoA desaturase sINA oligonucleotide SEQ ID NO:168.
XX
KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;
stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;
atherosclerosis; cytostatic; virucide; obesity; diabetes;
genetic engineering; pharmacogenomic; gene mapping; ss.
OS Synthetic.

XX
PN WO2003070885-A2.
XX
PD 28-AUG-2003.
XX
PF 13-FEB-2003; 2003WO-US004317.

XX
PR 20-FEB-2002; 2002US-0358580P.
PR 11-MAR-2002; 2002US-0363124P.
PR 06-JUN-2002; 2002US-0386782P.
PR 29-AUG-2002; 2002US-0406784P.
PR 05-SEP-2002; 2002US-0408378P.
PR 09-SEP-2002; 2002US-0409293P.
PR 20-SEP-2002; 2002US-0412204P.
PR 15-JAN-2003; 2003US-0440129P.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX

PI McSwiggen, J, Beigelman, L, Thompson, J;
XX
XX
DR
XX
WPI; 2003-721687/68.

PT New short interfering nucleic acid, useful e.g. for treatment and
diagnosis of obesity or diabetes, downregulates expression of the
stearoyl-CoA desaturase gene.

PS Example 3; SEQ ID NO 457; 139pp; English.

XX
CC The present invention describes a short interfering nucleic acid (sINA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of sINA; (2) kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or complexes of sINA; and (4) vectors that express sINA. SCD inhibiting sINAs have anorectic, antidiabetic, antiatherosclerotic, cytostatic and virucide activities. The sINAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; generic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD sINA, which is used in the exemplification of the present invention.

XX
SQ Sequence 19 BP; 3 A; 4 C; 9 G; 0 T; 3 U; 0 Other;

* Query Match 28.8%; Score 19; DB 1; Length 19;
- Best Local Similarity 100.0%; Pred. No. 8.9%;
- Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 2991 GGCAGCTCCCTCTGACA 3009
Db 19 GCGAGCTCCCTCTGACA 1

XX DR WPI; 2003-721687/68.

XX XX

PT New short interfering nucleic acid, useful e.g. for treatment and diagnosis of obesity or diabetes, downregulates expression of the

PT stearyl-CoA desaturase gene.

XX XX

PS Example 3; SEQ ID NO 168; 139pp; English.

XX

CC The present invention describes a short interfering nucleic acid (sINA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of sINA; (2) kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or complexes of sINA, and (4) vectors that express sINA. SCD inhibiting sINAs have anorectic, antidiabetic, antiatherosclerotic, cyclooxygenase and virucide activities. The sINAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD sINA, which is used in the exemplification of the present invention.

XX

SQ Sequence 19 BP; 6 A; 5 C; 5 G; 0 T; 3 U; 0 Other;

Query Match 28.8%; Score 19; DB 1; Length 19;

Best Local Similarity 84.2%; Pred. No. 8,9;

Matches 16; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 3009 ACAGAATGTCAGGTAC 3027

DQ 1 ACAGAAUGCUCAAGGUAC 19

RESULT 23

ADB27515/C ADB27515 standard; RNA; 19 BP.

XX AC ADB27515;

XX DT 29-JAN-2004 (first entry)

DE Stearyl-CoA desaturase sINA oligonucleotide SEQ ID NO:459.

XX KW short interfering nucleic acid; sINA; downregulation; inhibition; SCD;

KW stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic;

KW antiarteriosclerotic; cytotoxic; virucide; obesity; diabetes;

KW atherosclerosis; cancer; viral infection; drug screening;

KW genetic engineering; pharmacogenomic; gene mapping; ss;

XX OS Synthetic.

XX PN WO2003070885-A2.

XX PD 28-AUG-2003.

XX PF 13-FEB-2003; 2003WO-US004317.

XX PR 20-FEB-2002; 2002US-0358580P.

PR 11-MAR-2002; 2002US-0363124P.

PR 06-JUN-2002; 2002US-03867782P.

PR 29-AUG-2002; 2002US-0406784P.

PR 05-SEP-2002; 2002US-0403378P.

PR 09-SEP-2002; 2002US-0402939P.

PR 20-SEP-2002; 2002US-0412304P.

PR 15-JAN-2003; 2003US-0440129P.

XX PA (RIBO-) RIBOZYME PHARM INC.

XX PI Mcswiggen J, Beigelman L, Thompson J;

DR WPI; 2003-721687/68.

XX

PT New short interfering nucleic acid, useful e.g. for treatment and diagnosis of obesity or diabetes, downregulates expression of the

PT stearyl-CoA desaturase gene.

XX

PS Example 3; SEQ ID NO 459; 139pp; English.

XX

CC The present invention describes a short interfering nucleic acid (sINA) that downregulates expression of the SCD (stearoyl-CoA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of sINA; (2) kits for in vitro or in vivo delivery of sINA; (3) conjugates and/or complexes of sINA; and (4) vectors that express sINA. SCD inhibiting sINAs have anorectic, antidiabetic, antiarteriosclerotic, cyclooxygenase and virucide activities. The sINAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD sINA, which is used in the exemplification of the present invention.

XX

SQ Sequence 19 BP; 7 A; 2 C; 7 G; 0 T; 3 U; 0 Other;

Query Match 28.8%; Score 19; DB 1; Length 19;

Best Local Similarity 100.0%; Pred. No. 8,9;

Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3027 CTGAAACCATGCTCTCT 3045

DQ 19 CTGAAACCATGCTCTCT 1

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Job time : 0.001 secs

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